

Supplementary Figure Legends:

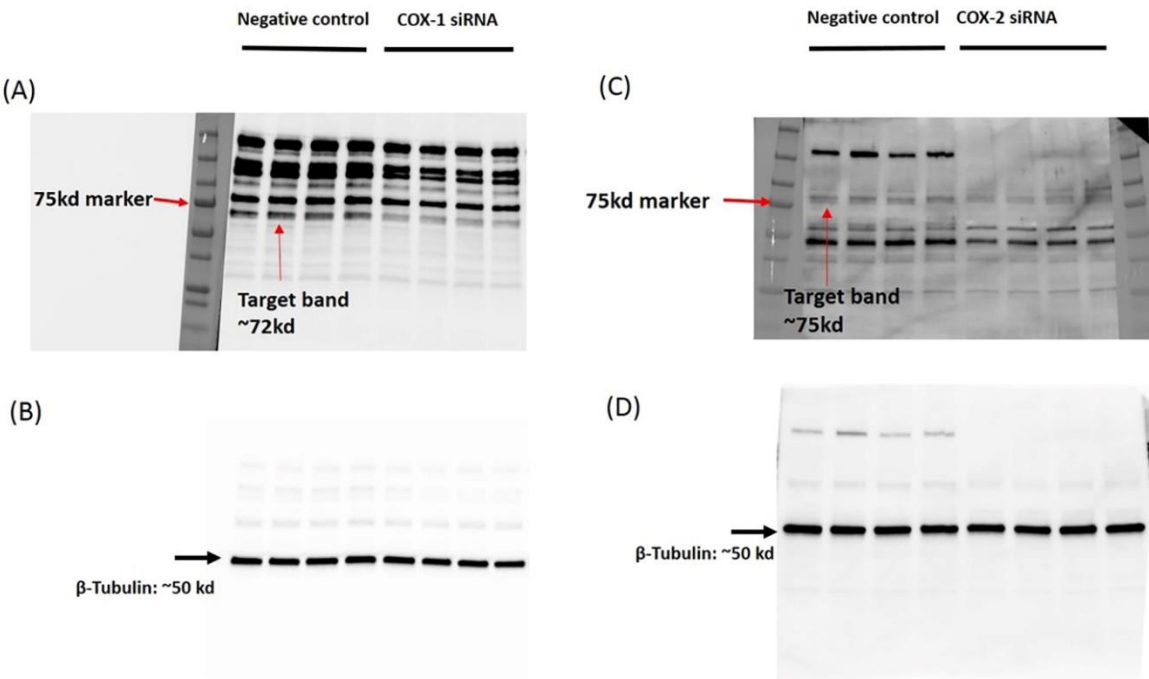


Figure S1: The completed images of Western blot results. (A) COX-1 Western blot results and corresponding loading control β-tubulin (B); (C) COX-2 Western blot results and corresponding loading control β-tubulin (D).

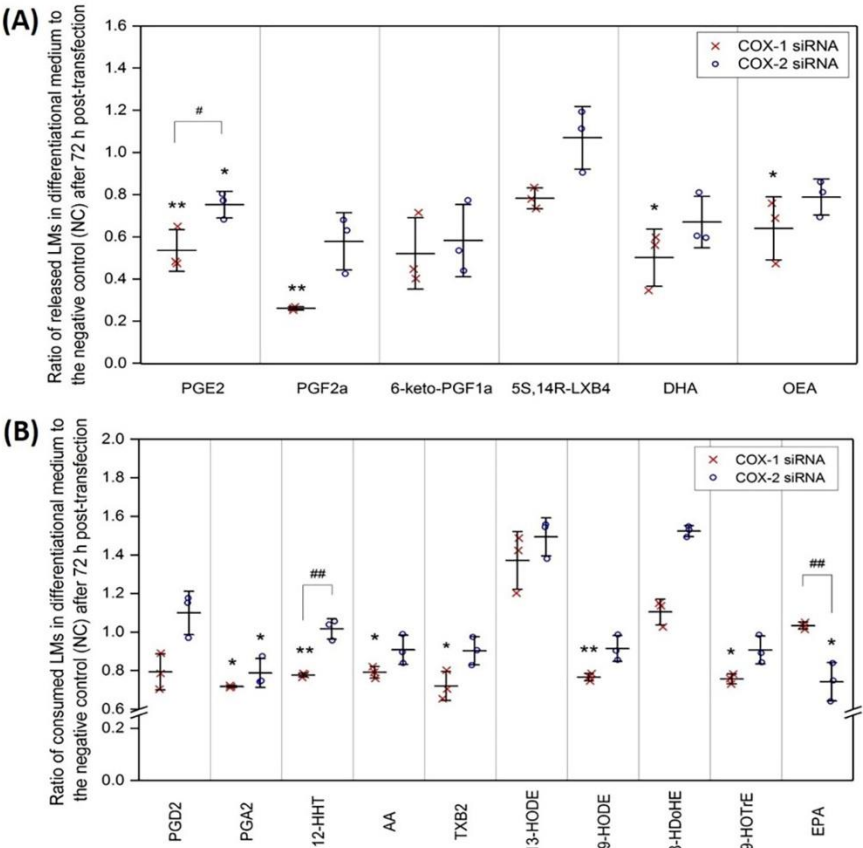


Figure S2: Results of lipodomic quantification in DM for primary myoblast after COX-1 and -2 knockdown. (A) LMs released by myocytes/myotubes into DM after 72 h

differentiation; (B) LMs consumed by myocytes/myotubes into DM after 72 h differentiation (concentrations were lower than blank medium after differentiation). n=3, * $p<0.05$ and ** $p<0.01$ compared with negative control; # $p<0.05$ and ## $p<0.01$ compared with COX-1 siRNA.

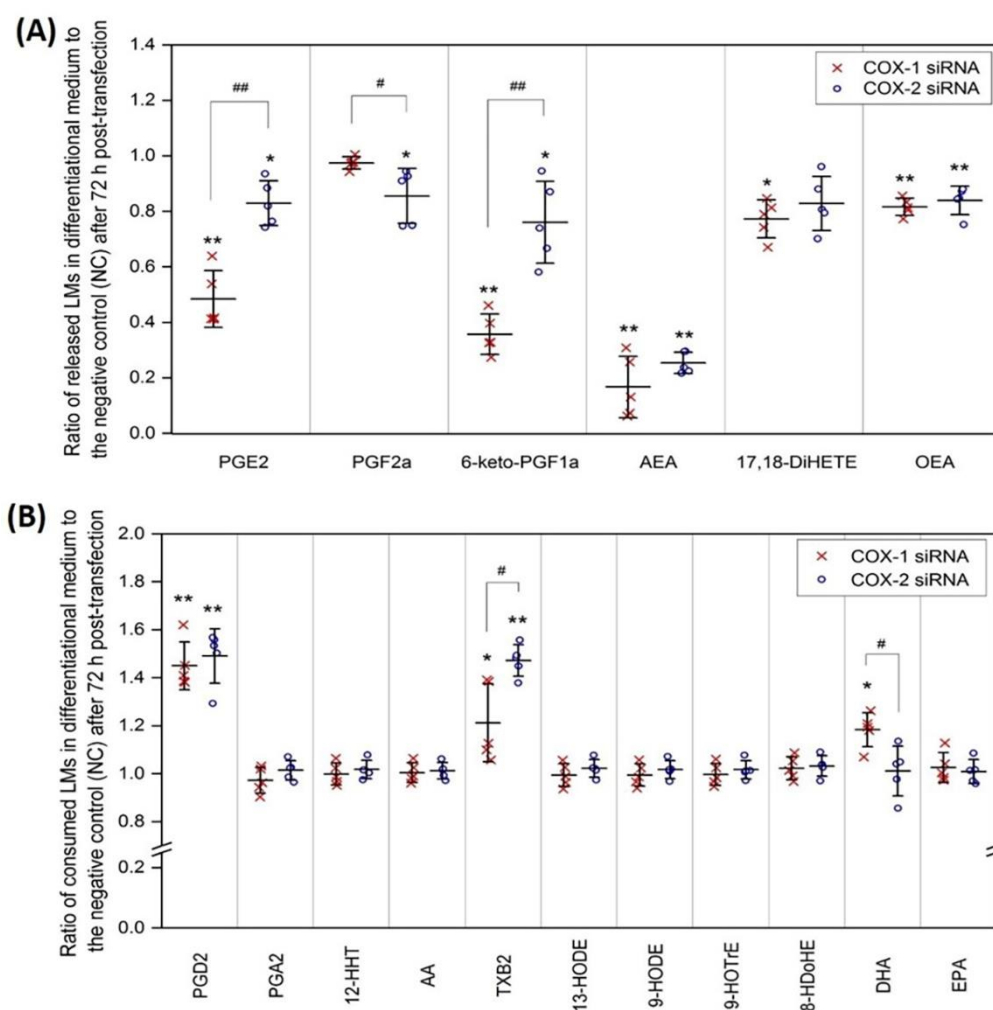


Figure S3: COX-1 and -2 knockdown leads to specific changes in LMs in DM of C2C12 culture. (A) LMs released by C2C12 cells/myotubes into DM after 72 h differentiation; (B) LMs consumed by C2C12 cells/myotubes into DM after 72 h differentiation (concentrations were lower than blank medium after differentiation). n=5, * $p<0.05$ and ** $p<0.01$ compared with negative control; # $p<0.05$ and ## $p<0.01$ compared with COX-1 siRNA.

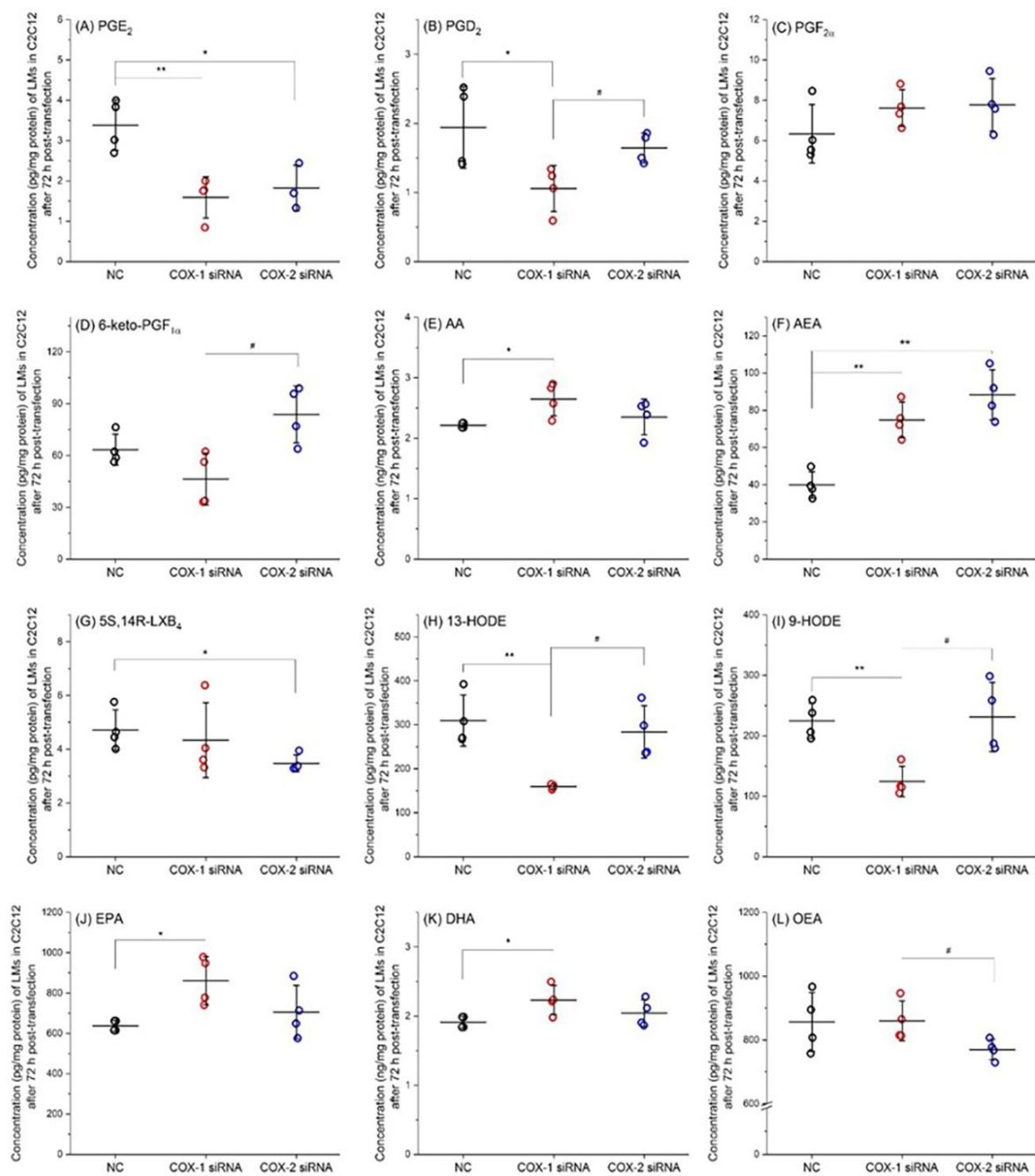


Figure S4: COX-1 and -2 knockdown leads to specific changes in LMs in C2C12 muscle cells. n=4, * $p<0.05$ and ** $p<0.01$ compared with NC; # $p<0.05$ compared with COX-1 siRNA.